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NOTES & SHORT COMMUNICATIONS

New combinations in *Pterostylis* and *Caladenia* and other name changes in the Orchidaceae of South Australia

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Abstract

Combinations are provided in *Pterostylis* and *Caladenia* (Orchidaceae) for new species initially described in the segregate genera *Arachnorchis*, *Bunochilus* and *Oligochaetochilus*. Recircumscription of existing species has led to some new species being recognised for South Australia and *Prasophyllum* sp. West Coast (*R.Tate AD96945167*) is now known as *Prasophyllum catenatum* D.L.Jones.

Introduction

In the past, when there have been disagreements between botanists about the level at which species should be recognised, the arguments have not impinged particularly on the outside community. Today, with botanical names increasingly being added to databases and databases being much more readily available to users through the internet, there is often a need for practical purposes for the recognition of a single name for a particular species, i.e. a ‘preferred’ name for each taxon. Herbaria, amongst other institutions, tend to adopt a conservative approach in the adoption of new names, preferring to wait until there has been sufficient testing of new concepts and hence greater stability and acceptance of these names (Entwistle & Weston 2005). Rushing in and adopting name changes as they occur can lead to a later reversal of a decision and an unnecessary confusion of names. For instance, within the segregate genera of *Caladenia* R.Br., earlier combinations made in both *Calonema* (Lindl.) D.L.Jones & M.A.Clem. (Jones et al. 2001) and *Calonemorchis* Szlach. (Szlachetko 2002) were subsequently found to be superfluous or to contravene the rules of the *International Code of Botanical Nomenclature* (McNeill et al. 2006). Another example within orchids is the transfer of species from *Corunastylis* Fitzg. to *Genoplesium* R.Br. and then back again (Jones et al. 2002; see below).

Presently, the decision has been made by the Council of Heads of Australasian Herbaria (CHAH) that the many segregate genera being proposed by Jones et al. (2001) within *Caladenia*¹ and by Jones & Clements (2002b)

within *Pterostylis*² R.Br. will not be adopted. Both genera in the wider sense are recognised as monophyletic (Hopper & Brown 2004; Jones & Clements 2002b) and for the practical purpose of running Australia’s Virtual Herbarium (2008) the broader generic concept will continue to be applied (Entwistle 2003; Entwistle & Weston 2005).

The issue of the segregate orchid genera has yet to be addressed by the CHAH committee of the Australian Plant Census (2008), whose role it is to agree on a ‘preferred name’ for each Australian taxon. It should be stressed that alternative taxonomies are still available to those who wish to use them and just because one name has been chosen for use in the major databases supported by the Australian herbaria this does not imply that alternatives are incorrect or scientifically unsupported.

New combinations in *Caladenia* and *Pterostylis*

A number of new names applying to South Australian species have been published by Jones in the genera *Arachnorchis* D.L.Jones & M.A.Clem. (Jones 2006a) and *Bunochilus* D.L.Jones & M.A.Clem. (Jones 2006b). Alternative names are not available in *Caladenia* and *Pterostylis*, respectively, and the necessary new combinations are made in this paper. This follows similar publications by Backhouse (2007) and Thiele & Brown (2007), who made the relevant combinations for Victoria and Western Australia, respectively. Other unpublished phrase or manuscript names which have also been used for the species have been listed where

¹ *Arachnorchis* D.L.Jones & M.A.Clem., *Petalochilus* R.S. Rogers, *Jonesiopsis* Szlach. and *Stegostyla* D.L.Jones & M.A.Clem. for South Australia

appropriate. The International Plant Names Index (2008) and the Australian Plant Name Index (2008) have been used to check that the epithets in the new combinations have not already been used in the genus.

***Caladenia aurulenta* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis aurulenta* D.L.Jones, Orchadian 15(2): 90–91 (2005). — **Type:** South Australia, Gawler Ranges, Scrubby Creek Station, 9 Sep. 2000, *D.L.Jones* 17452 & *M.Garratt* (holo: CANB; iso: AD, BRI, MEL, NSW, PERTH).

***Caladenia ensigera* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis ensigera* D.L.Jones, Austral. Orchid Res. 5: 59 (2006). — **Type:** South Australia, Mt Remarkable National Park, Circle Track, 5 Sep. 1999, *D.L.Jones* 16698 & *M.Garratt* (holo: CANB; iso: AD, MEL).

***Caladenia flindersica* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis flindersica* D.L.Jones, Austral. Orchid Res. 5: 60 (2006). — **Type:** South Australia, Alligator Gorge, 4 Sep. 2005, *C. & M.Houston* 41 (holo: CANB; iso: AD, MEL).

Caladenia patersonii auct. non R.Br.: Weber & Bates (1986), partly.

Caladenia sp. Inland (*F.A.Mason* 300) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 194 (2005), partly (only with respect to FR and NL records). *Arachnorchis* aff. *arenaria* ‘Flinders’: R.J.Bates, Orchids S. Austral. CD-ROM (2007), pro syn.

***Caladenia fuliginosa* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis fuliginosa* D.L.Jones, Austral. Orchid Res. 5: 61 (2006). — **Type:** South Australia, Yorke Peninsula, Corny Point–Marion Bay Road, 2 Sep. 2000, *D.L.Jones* 17230 & *M.Garratt* (holo: CANB; iso: AD, MEL).

Caladenia patersonii var. *suaveolens* Nicholls.

Caladenia fragrantissima D.L.Jones & G.W.Carr subsp. *fragrantissima*, partly.

Caladenia patersonii auct. non R.Br.: Weber & Bates (1986), partly.

***Caladenia interanea* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis interanea* D.L.Jones, Orchadian 15(2): 91–92 (2005). — **Type:** South Australia, W end of the Gawler Ranges, Mt Granite, 9 Sep. 2000, *D.L.Jones* 17455 & *M.Garratt* (holo: CANB; iso: AD, MEL).

Caladenia tensa auct. non G.W.Carr: Barker et al. (2005), partly.

Caladenia tentaculata auct. non Schltdl.: Bates & Weber (1990), partly.

Caladenia dilatata auct. non R.Br.: Weber & Bates (1986), partly.

***Caladenia intuta* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis intuta* D.L.Jones, Orchadian 14(12): 561–562 (2005). — **Type:** South Australia, Yorke Peninsula, near Hardwicke [Bay], 2 Sep. 1999, *D.L.Jones* 16648 & *M.Garratt* (holo: CANB; iso: AD, MEL, NSW).

Caladenia sp. Brentwood (*R.J.Bates* 53510) R.J.Bates, Electronic Flora of South Australia Census Database (listed since April 2005).

***Caladenia leptochila* subsp. *dentata* (D.L.Jones) R.J. Bates, comb. nov.**

Basionym: *Arachnorchis leptochila* subsp. *dentata* D.L.Jones, Austral. Orchid Res. 5: 62 (2006). — **Type:** South Australia, Alligator Gorge National Park, 9 Oct. 1988, *D.L.Jones* 2966 & *M.Garratt* (holo: CANB; iso: AD, MEL).

***Caladenia saxatilis* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis saxatilis* D.L.Jones Austral. Orchid Res. 5: 63 (2006). — **Type:** South Australia, Eastern outskirts of Mt Remarkable National Park, Alligator Gorge side, 5 Sept. 1999, *D.L.Jones* 16711 & *M.Garratt* (holo: CANB).

Caladenia aff. *fitzgeraldii*: Bates & Weber, pl. 44 (1990).

Caladenia stellata auct. non D.L.Jones: Barker et al. (2005), partly.

***Caladenia strigosa* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis strigosa* D.L.Jones, Austral. Orchid Res. 5: 57 (2006). — **Type:** South Australia, Ruakkan, 25 Sep. 2005, *R.Bates* 65973 (holo: CANB 673104; iso: AD).

Caladenia australis auct. non G.W.Carr: Barker et al. (2005), partly.

***Caladenia zephyra* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Arachnorchis zephyra* D.L.Jones, Austral. Orchid Res. 5: 65 (2006). — **Type:** South Australia, Carrapee Hill Conservation Park, *D.T.Rouse* 186, *M.Duncan*, *G.Backhouse* & *P.McCauley* (holo: CANB).

Caladenia sp. Inland (*F.A.Mason* 300) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 194 (2005), partly (only with respect to specimens from EP).

Caladenia arenaria auct. non Fitzg.: Jessop (1993), partly.

Caladenia patersonii auct. non R.Br.: Bates & Weber (1990), partly.

***Pterostylis flavovirens* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Bunochilus flavovirens* D.L.Jones, Austral. Orchid Res. 5: 132 (2006). — **Type:** South Australia, Port Lincoln, coastal reserve towards Lincoln Cove, 7 Aug. 1995, *D.L.Jones* 14110 & *B.E.Jones* (holo: CANB).

Pterostylis sp. Coastal (*R.Bates* 37621) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 201 (2005), partly.

Pterostylis longifolia auct. non R.Br.: Weber & Bates (1986), partly.

***Pterostylis littoralis* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Bunochilus littoralis* D.L.Jones, Austral. Orchid Res. 5: 133 (2006). — **Type:** South Australia, Bog Road, near Sunland, opposite Lake St Clair, 7 July 1999, *D.L.Jones* 16461, *M.Garratt* & *R.Bates* (holo: CANB; isotype AD).

Pterostylis sp. Coastal (*R.Bates* 37621) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 201 (2005), partly.

***Pterostylis viriosa* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Bunochilus viriosus* D.L.Jones, Austral. Orchid Res. 5: 129 (2006). — **Type:** South Australia. Belair National Park, NW boundary, 8 Aug. 1993, *D.L.Jones* 11846 & *B.E.Jones* (holo: CBG 9706956 at CANB; iso: AD).

Pterostylis smaragdyna auct. non D.L.Jones & M.A.Clem.: Barker et al. (2005), partly.
Pterostylis longifolia auct. non R.Br.: Bates & Weber, pl. 171 (1990).

***Pterostylis mirabilis* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Oligochaetochilus mirabilis* D.L.Jones, Orchadian 15(9): 394–395, Fig. 1 (2007). — **Type:** South Australia. Eyre Peninsula: Cowell to Kimba Road, 23 Nov. 1983, R.Bates 3645 (holo: AD).

Oligochaetochilus aff. *despectans* 'Eyre Peninsula': R.J.Bates, Orchids S. Austral. CD-ROM (2007).

Pterostylis sp. Eyre Peninsula (R.Bates 19474) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 201 (2005).

***Pterostylis psammophilus* (D.L.Jones) R.J.Bates, comb. nov.**

Basionym: *Oligochaetochilus psammophilus* D.L.Jones, Orchadian 15(9): 396–397, Fig. 2 (2007). — **Type:** South Australia. Cockatoo Valley, 9 Sept. 1995, R.Bates 41985 (holo: CANB).

Pterostylis 'Sandy Creek' R.J.Bates, Orchids S. Australia CD-ROM (2007).

Oligochaetochilus 'Sandy Creek' R.J.Bates, Orchids S. Australia CD-ROM (2007).

Pterostylis biseta auct. non Blackmore & Clemesha: Bates & Weber (1990).

Corunastylis* vs *Genoplesium

All species previously treated as *Genoplesium* have been changed back to *Corunastylis* since *Genoplesium* is now treated as a monotypic genus confined to the Sydney region (Jones et al. 2002).

One species, *Corunastylis tepperi* (F.Muell. ex Tepper) D.L.Jones & M.A.Clements, treated at species level by Jones & Clement (2002a) was treated as a synonym of *Genoplesium nigricans* (R.Br.) D.L.Jones & M.A.Clem. in the last census (Barker et al. 2005). It is now considered to be distinct from that species by its green flowers with a dark labellum compared to the uniformly purple-brown flowers of *G. nigricans* (Jones 2006c; Bates 2007). *Corunastylis tepperi* is distributed from Bendigo in Victoria to Corrigin in Western Australia and is considered to be very common in South Australia.

Replacement name for an existing phrase name

***Prasophyllum catenatum* D.L.Jones**

Austral. Orchid Res. 5: 146 (2006).

Prasophyllum sp. West Coast (R.Tate AD96945167) R.J.Bates in W.R.Barker et al., J. Adelaide Bot. Gard. Suppl. 1: 199 (2005), partly.

Prasophyllum odoratum auct. non R.S.Rogers: Jessop (1993), partly.

Prasophyllum patens auct. non R.Br.: Bates & Weber (1990), partly.

Prasophyllum patens var. *patens* auct. non R.Br.: Weber & Bates (1986).

Prasophyllum 'West Coast' R.Tate: R.J.Bates, J. Native Orchid Soc. of S. Australia 29(7): 69 (2005).

New species for South Australia

***Prasophyllum praecox* D.L.Jones**

Austral. Orchid Res. 5: 153 (2006).

Prasophyllum odoratum auct. non R.S.Rogers: Barker et al. (2005), partly.

***Prasophyllum collinum* D.L.Jones**

Austral. Orchid Res. 5: 147 (2006).

Prasophyllum odoratum auct. non R.S.Rogers: Barker et al. (2005), partly.

Pterostylis cucullata* R.Br. subsp. *sylvicola

Austral. Orchid Res. 5: 86 (2006).

Pterostylis cucullata auct. non R.Br.: Bates & Weber (1990), partly.

***Pterostylis lustra* D.L.Jones**

Austral. Orchid Res. 5: 87 (2006).

Pterostylis falcata auct. non R.S.Rogers: Barker et al. (2005), partly.

Pterostylis furcata auct. non Lindl.: Weber & Bates (1986), partly.

***Pterostylis prasina* (D.L.Jones) G.N.Backh.**

Victorian Naturalist 124: 124 (2007).

Bunochilus prasinus D.L.Jones, Austral. Orchid Res. 5: 133 (2006).

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